



Final revision sheet

Student name:

Grade: 7

Date:

Total:

1. Complete the coordinate tables below and draw all the straight lines on the same axis:

$$y = x - 1$$

x	-2	-1	0	1	2
y					

$$y = -x + 1$$

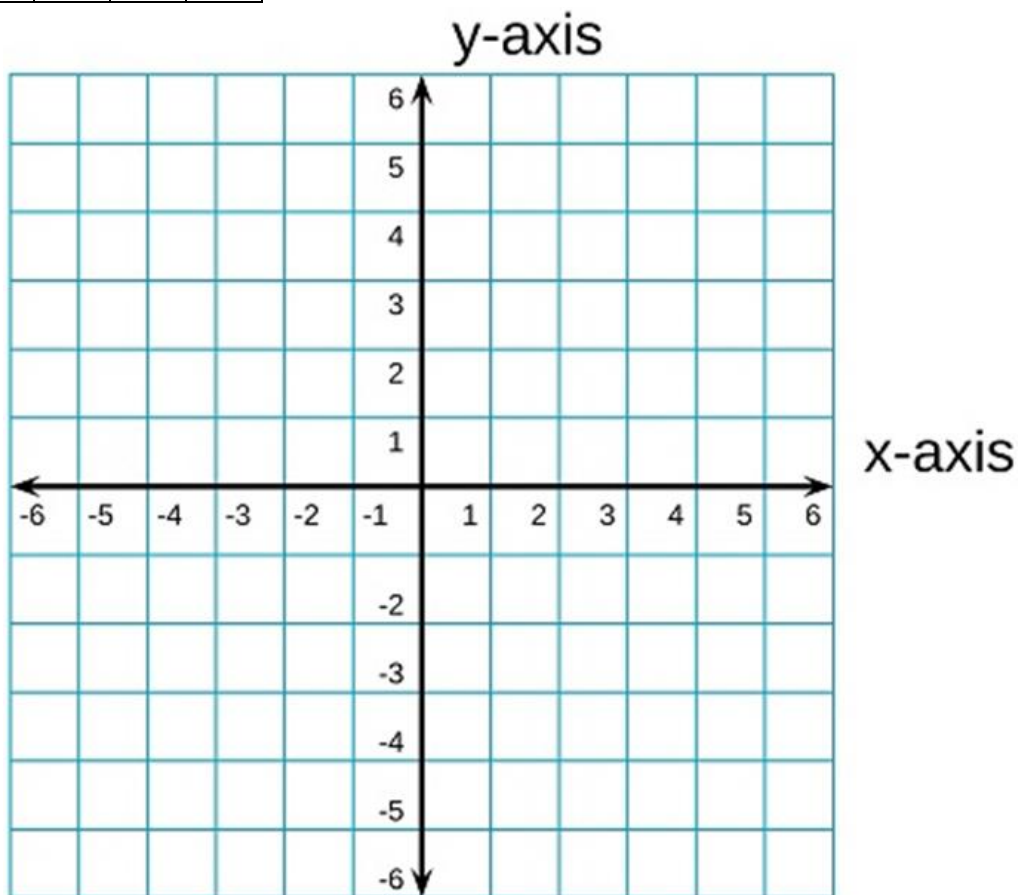
x	-2	-1	0	1	2
y					

$$y = -2x + 2$$

x	-2	-1	0	1	2
y					

$$y = 2x$$

x	-2	-1	0	1	2
y					



2. Look at the function below and find the

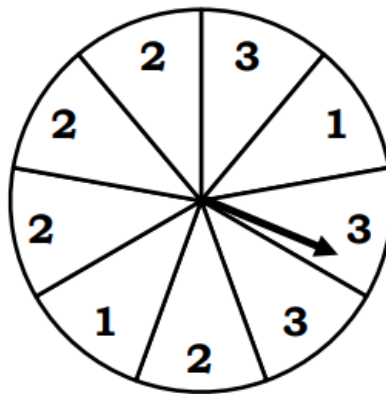
- Gradient
- Y-intercept

Function	Gradient	y-intercept
$y = 2x + 3$		
$y = -14x - 2$		
$y = 2.5x - 0.3$		
$y = 2x$		
$y = x + 3$		

3. Complete the probability questions:

(a)

Beatrice is going to spin a fair nine-sided spinner.
The spinner is pictured below.



- (a) What is the probability that Beatrice spins a 1?
- (b) What is the probability that Beatrice spins a 2?
- (c) What is the probability that Beatrice spins an odd number?
- (d) What is the probability that Beatrice spins a 4?

(b)

The probability of a football team winning a match is 0.48.

The probability of a football team drawing a match is 0.3.

What is the probability that the football team loses the match?

(c)

Kieran is going to buy a hoodie, a jumper or a blazer.

The probability of Kieran buying a hoodie is 0.52.

The probability of Kieran buying a blazer is 0.2.

What is the probability that Kieran buys a jumper?

(d)

Adam has a set of six cards.

The cards have A, A, B, B, B and C on them.

Adam is going to pick a card at random.

(a) Circle the word that best describes the probability of choosing a C.

Impossible Unlikely Evens Likely Certain

(b) Circle the word that best describes the probability of choosing a B.

Impossible Unlikely Evens Likely Certain

(c) Circle the word that best describes the probability of choosing a D.

Impossible Unlikely Evens Likely Certain

4. Find the midpoint of each line:

(a) $(2, 4)$ and $(6, 10)$

(b) $(1, 4)$ and $(9, 12)$

(c) $(0, 7)$ and $(6, 1)$

(d) $(-5, 2)$ and $(5, -4)$

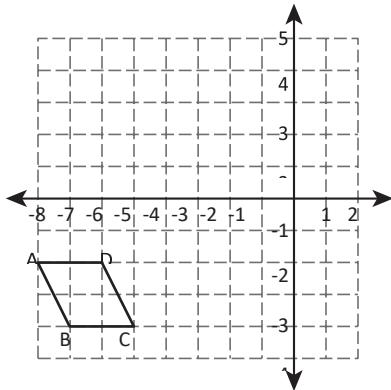
(e) $(-3, 9)$ and $(7, -1)$

(f) $(0, -4)$ and $(9, 0)$

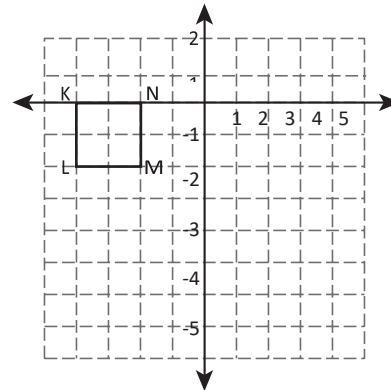
5. Complete the following transformations:

Reflection:

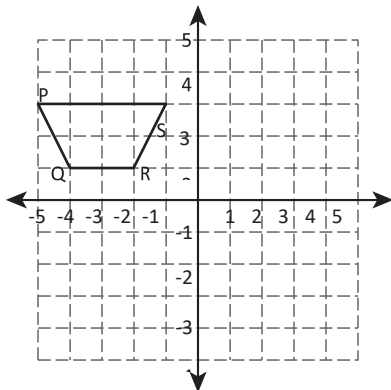
1) Reflection across the line $x = -5$



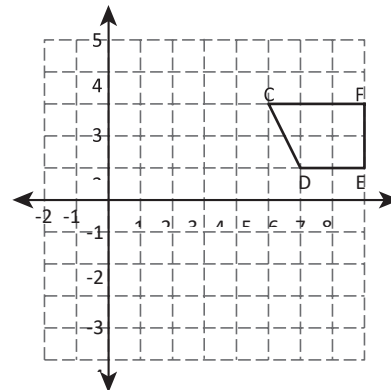
2) Reflection across the line $y = -4$



3) Reflection across the y-axis

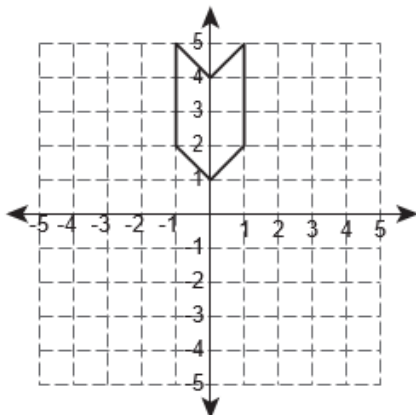


4) Reflection across the line $x = 3$

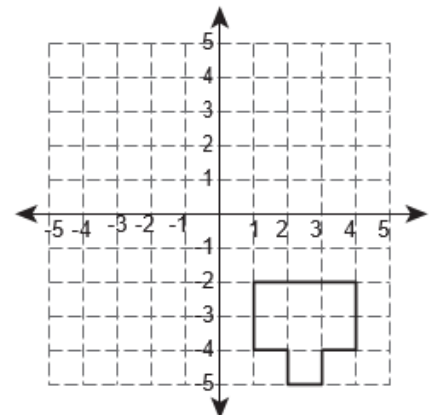


Rotation:

1) 180° rotation



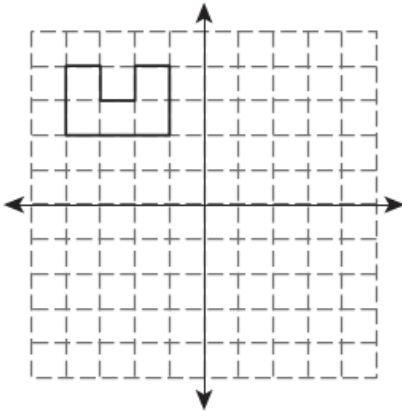
2) 90° clockwise rotation



Translation:

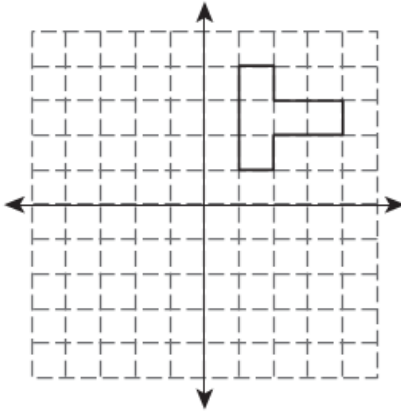
Translate with vector

$$\begin{pmatrix} 4 \\ -3 \end{pmatrix}$$



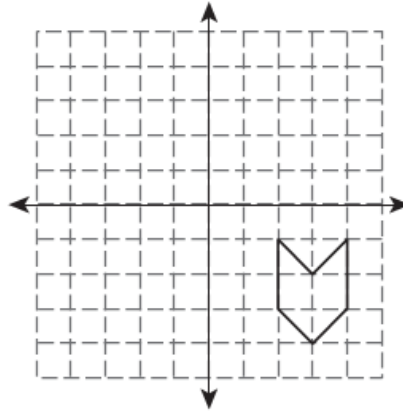
Translate with vector

$$\begin{pmatrix} -2 \\ -4 \end{pmatrix}$$



Translate with vector

$$\begin{pmatrix} -3 \\ 4 \end{pmatrix}$$



6. Convert between miles and kilometers:

Miles	Kilometers
100	
	55
65	
	120
23	
	100
25	

7. Simplify the ratios (convert between units if they are different)

- a** \$4 : \$12

= _____
- b** 30 cents : \$6

= _____
- c** 10 hours : 1 day

= _____
- d** 400 g : 1 kg

= _____
- e** 50 cents : 90 cents

= _____
- f** 3 days : 3 weeks

= _____
- g** 12 cm : 1 metre

= _____
- h** 20 seconds : 1 min

= _____
- i** 2 kg : 800 g

= _____
- j** 400 mL : 1 L

= _____
- k** 3 km : 600 m

= _____
- l** 8 cm : 60 mm

= _____
- m** 60 cm : 1 $\frac{1}{2}$ m

= _____
- n** 500 g : 3 kg

= _____
- o** 30 min : 2 h

= _____
- p** 1 h : 40 min

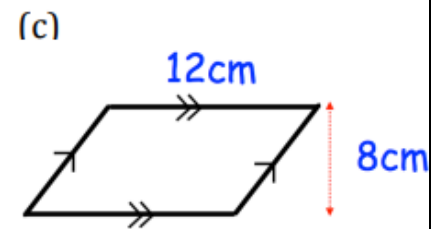
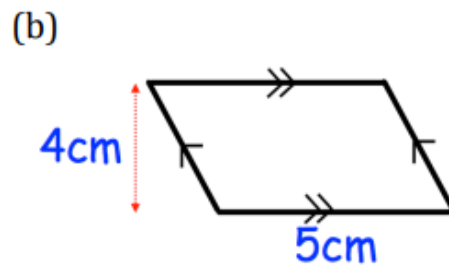
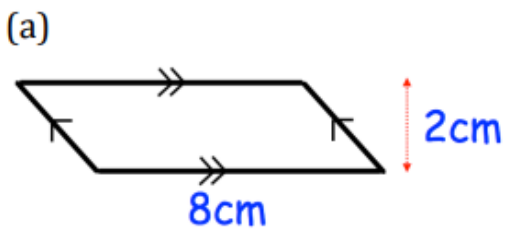
= _____

8. Sharing ratios:

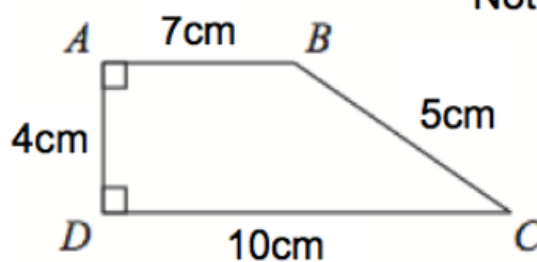
Share 44 balls between Melissa and Gabriel in the ratio 6 : 5

Divide 36 m in the ratio 9 : 2 : 1

9. Solve the area:

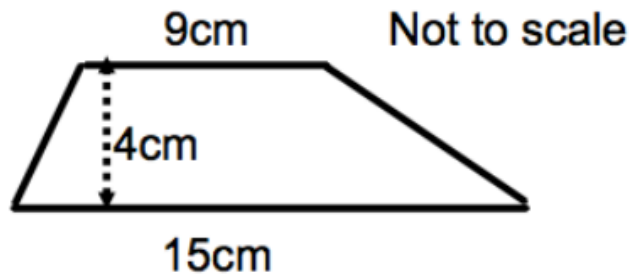


Below is a trapezium, ABCD.



Not drawn accurately

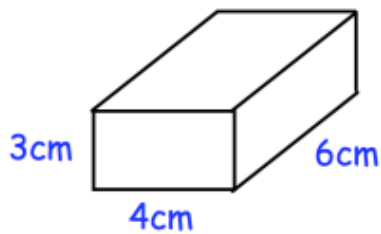
Work out the area of the trapezium.



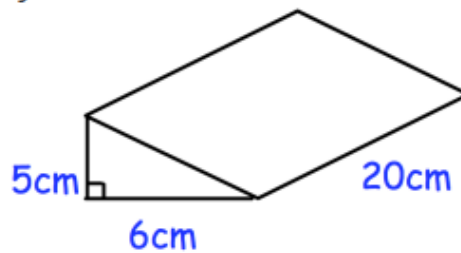
Calculate the area of the trapezium.

10. Calculate the volume of each shape:

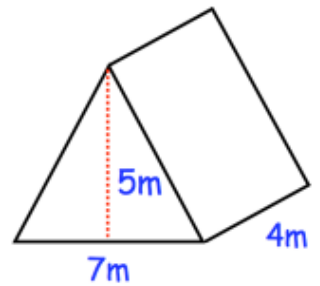
(a)



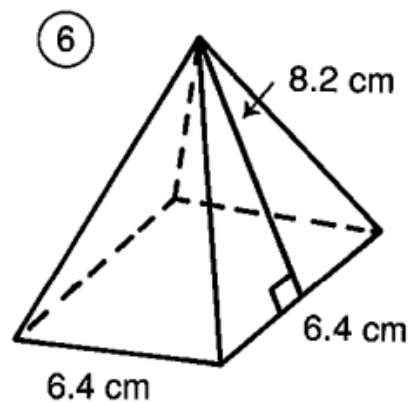
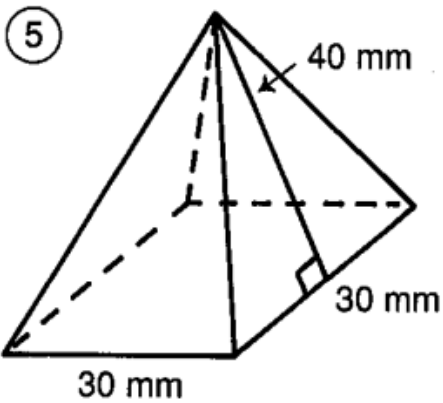
(b)



(c)

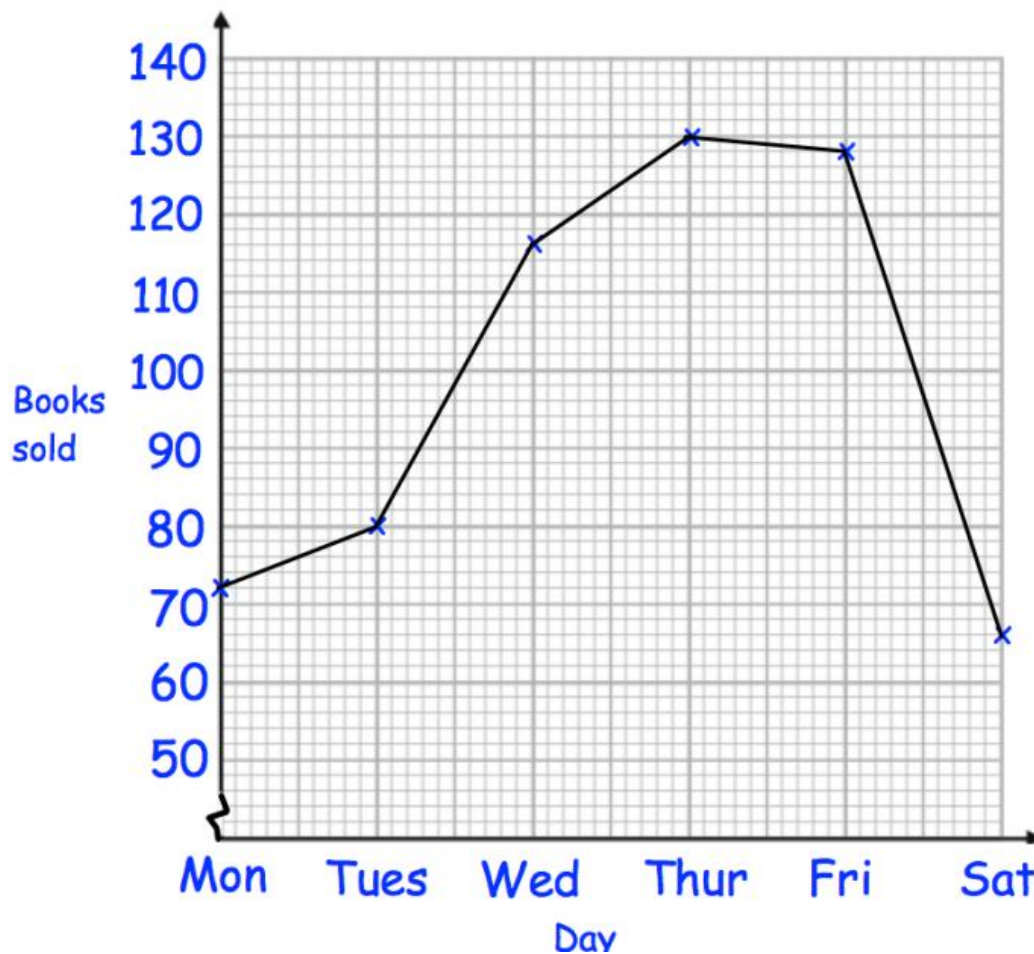


11. Calculate the total surface area of the pyramids:



12.

1. Below is a line graph that shows how many books are sold in a charity shop over one week.



- (a) On which day did the charity shop sell the most books?

.....
(1)

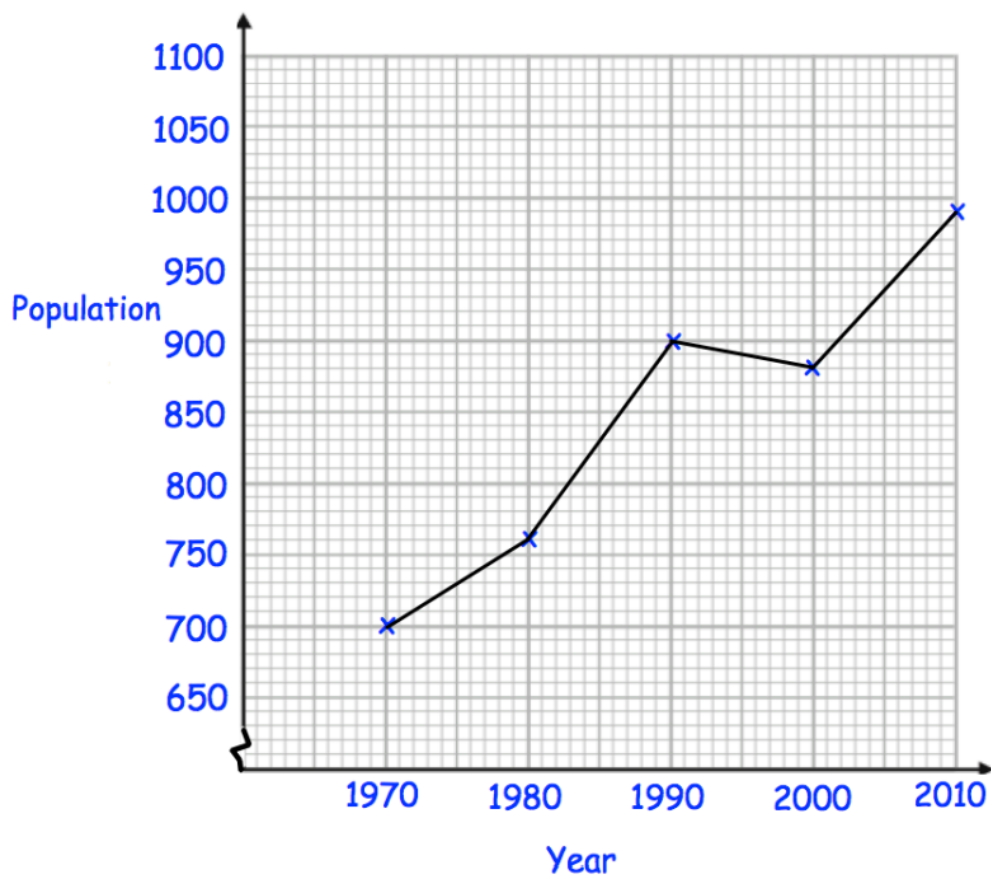
- (b) On which day did the charity shop sell the least books?

.....
(1)

- (c) How many books were sold on Tuesday?

.....
(1)

2. Below is a line graph that shows the population of a village.



(a) What was the population in 1980?

.....
(1)

(b) In which year was the population 700?

.....
(1)

The population is expected to increase by 120 by 2020.

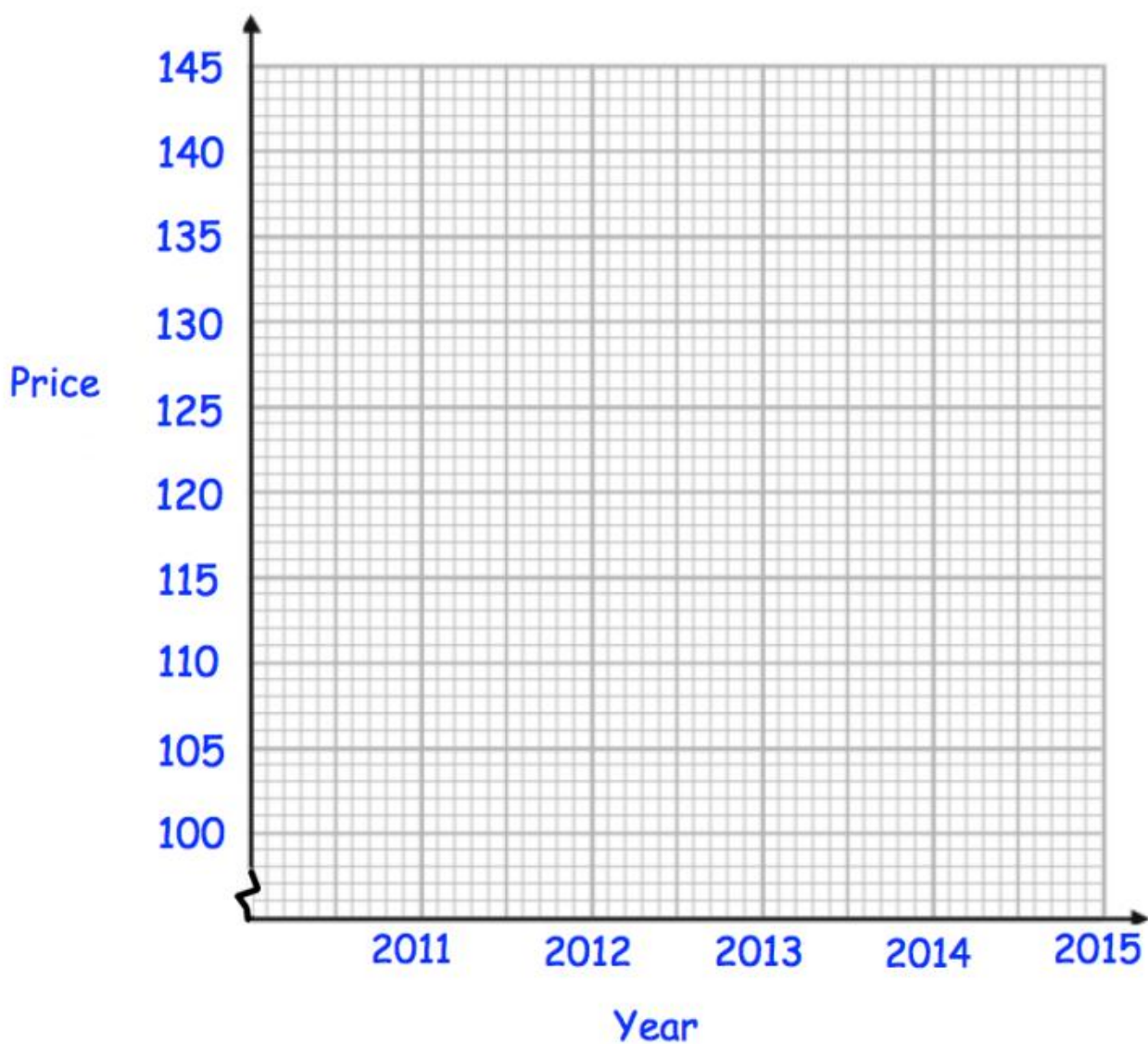
(c) Work out the expected population in 2020.

.....
(2)

3. The table shows the average price of unleaded petrol in England over 5 years.

Year	Price in pence
2011	111
2012	128
2013	133
2014	132
2015	108

(a) Draw a line graph for the data

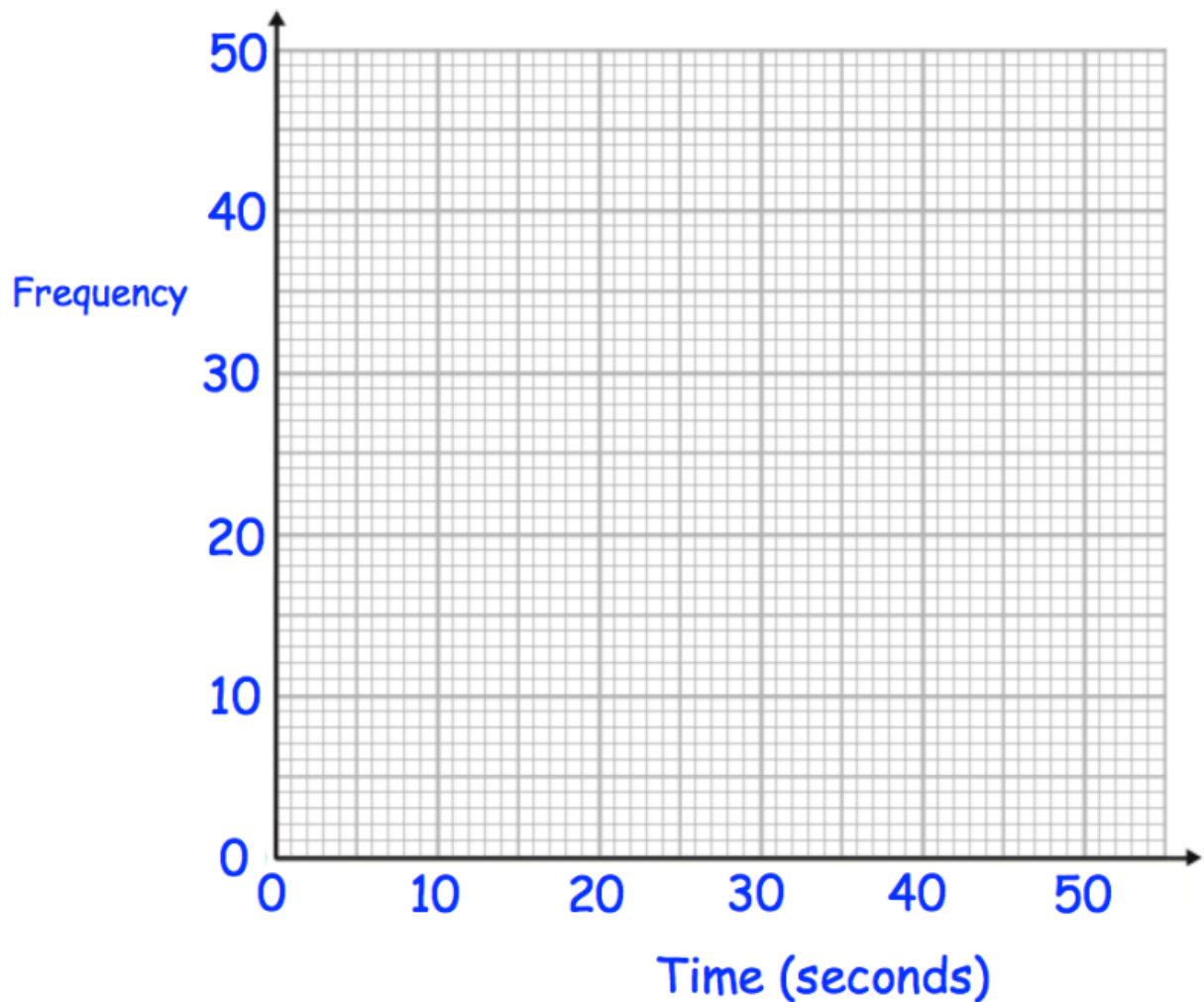


13. Complete the frequency polygon:

The table gives information about the time taken, in seconds, for students to complete a puzzle.

Time (seconds)	Frequency
$0 < t \leq 10$	7
$10 < t \leq 20$	25
$20 < t \leq 30$	38
$30 < t \leq 40$	16
$40 < t \leq 50$	12

Draw a frequency polygon for the information in the table.

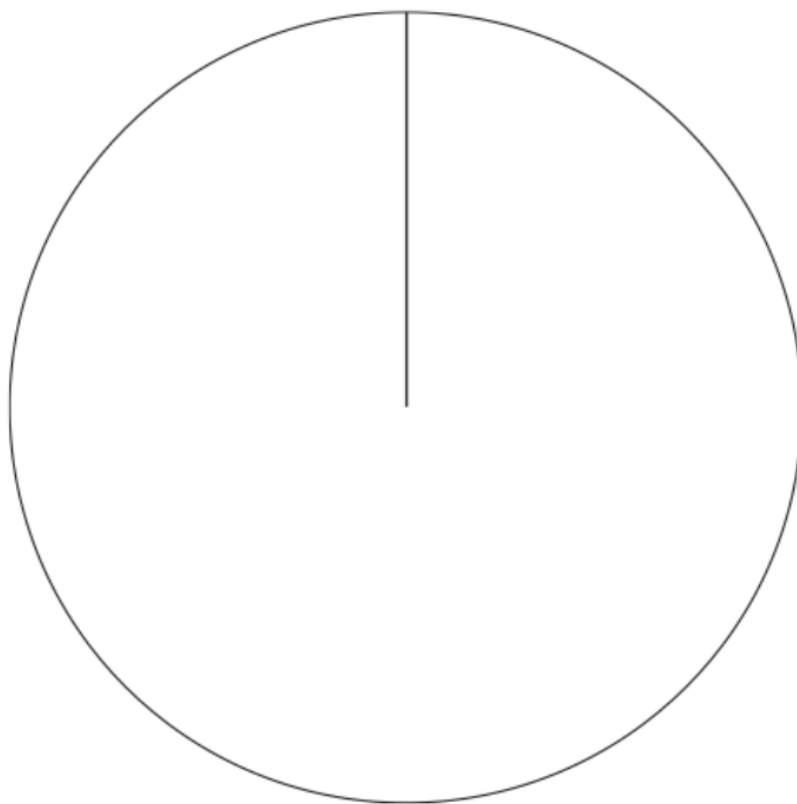


1. The table gives information about the holiday destination of 18 students in a class.



Country	Frequency	
France	3	
Wales	4	
England	11	

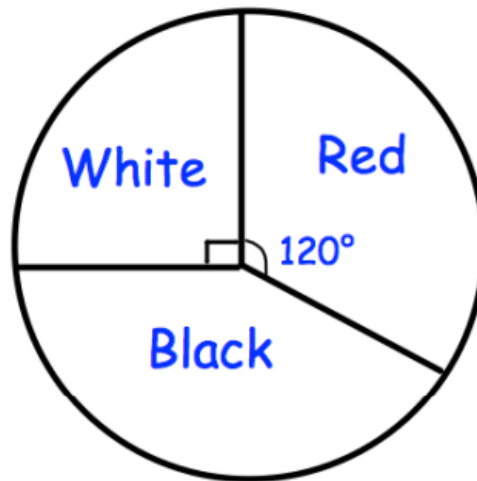
Draw an accurate pie chart to show this information.



4. A bag contains red, white and black counters.



The pie chart shows information about the counters in the bag.



- (a) What fraction of the counters are white?
Give your answer in its simplest form.

.....
(2)

- (b) What fraction of the counters are red?
Give your answer in its simplest form.

.....
(2)

There are 24 counters in the bag.

- (c) Work out how many counters are black.

.....
(2)